

CLAIMS

WHAT IS CLAIMED IS:

1. A method of modifying a balloon of a catheter assembly, comprising:

inflating a balloon of a catheter assembly from a collapsed configuration to an

5 inflated state;

applying a substance to the balloon, wherein the substance is deposited on a surface of the balloon and/or is deposited within a wall membrane of the balloon.

2. The method of Claim 1, wherein the inflated state is greater than a range of an intended expanded configuration of the balloon.

10 3. The method of Claim 1, wherein the inflated state is less than a range of an intended expanded configuration of the balloon.

4. The method of Claim 1, wherein the inflated state is a hyper-inflated state.

5. The method of Claim 1, wherein the inflated state is maintained at the same or generally the same level during the application of the substance to the balloon.

15 6. The method of Claim 1, wherein the inflated state is increased or decreased during the application of the substance to the balloon.

7. The method of Claim 1, additionally including pulsating the balloon to a greater and/or smaller size during the application of the substance.

8. The method of Claim 1, wherein the substance is in a fluid form or carried by a fluid carrier.

9. The method of Claim 8, additionally comprising removing the fluid carrier from the balloon such that a dry form of the substance is left on and/or within the wall membrane of the balloon.

10. The method of Claim 9, wherein the balloon is reduced to a deflated state or to the collapsed configuration prior to or during the process of removal of the fluid carrier.

11. The method of Claim 9, wherein the balloon is inflated to a greater extent prior to or during the process of removal of the fluid carrier.

12. The method of Claim 9, wherein the balloon is partially deflated prior to or during the process of removal of the fluid carrier.

13. The method of Claim 9, wherein the inflated state is maintained at the same or a generally same level during the removal of the fluid carrier.

14. The method of Claim 9, wherein the balloon is pulsed to a greater and/or smaller size during the removal of the fluid carrier.

15. The method of Claim 1, wherein the substance is one of or a combination of a therapeutic substance, a polymeric material and a blocking agent.

16. The method of Claim 1, wherein the substance is in fluid form or carried by a fluid carrier, wherein the method additionally comprises blowing gas at the balloon.

17. The method of Claim 16, wherein gas is blown contemporaneously with the application of a substance.

18. The method of Claim 16, wherein gas is blown subsequent to the application of the substance.

5 19. The method of Claim 1, wherein the balloon is inflated prior to application of the substance.

20. The method of Claim 1, wherein the balloon is inflated subsequent to the application of the substance.